



Overview

The brain plays an important role in language acquisition and retention. In this presentation, we will explore how the brain learns, stores, and retrieves language, as well as the specific differences between the brain's activity when learning a first and additional languages.

Cognitive differences

- L2 results in more activation of the language-processing mechanisms – more “work”
- L2 takes up more space in the working memory than L1

Physical Differences

- Quality of fluency factors reduced in L2 versus L1 – articulation, reading rates, eye movements
- Pre-writing for a composition in the L2 is more beneficial when done in the L1

Age Differences

- The earlier L2 is learned, the better - proficiency achieved, ease of learning, fluency factors

Learning

- Many scholars agree that there is a finite developmental period in which a first language can be learned.
- New learning takes place in the left hemisphere of the brain and during development, the brain creates many neural pathways, some of which grow stronger and more efficient, while the others fade away.

Storage

- Language is stored in the synaptic gaps in different areas of the brain. Frequently used words and grammar are encoded in between well-developed neurons.

Retrieval

- Recollection takes place through a “form-to-meaning matching process” by matching phonemes to lexemes, then by analyzing all the created morphemes.
- Broca's and Wernicke's areas help with the recall of language to produce different aspects of speech.